

Transportation Asset Management

GDOT Board Workshop
August 29, 2011



What is Transportation Asset Management?

- The AASHTO subcommittee on Asset Management defines Transportation Asset Management (TAM) as
 - “a strategic process of operating, maintaining, upgrading and expanding physical assets using sound business and engineering practices for resources allocation”
- In simpler terms the principles of TAM *inform* policy and resource decisions based on
 - well defined goals and objectives
 - sound data
 - addressing highest risk to mobility

What is Transportation Asset Management?

An effective TAM program requires the coordinated effort of three things



What is Transportation Asset Management?

- **Strategic Planning**

- Identifies and Documents Goals and Objectives for the Department
- Identifies short term business strategies
- Sets the Direction

- **Asset Management**

- Focuses on Extending the Life-cycle of Existing Assets
- Uses data to inform decisions
- Encourages collaboration and coordination throughout Department

- **Performance Management**

- Sets Performance Measures and Targets based on Objectives
- Determines if we are moving toward our goals
- Guides changes in decisions or direction

Transportation Asset Management



FY 2012 Strategic Plan Update (FY 2012 SPU)

- In plain English GDOT's Strategic Plan is a set of decisions about....
 - what we want to achieve as an agency
 - how we plan to efficiently achieve these goals
- GDOT began producing strategic plans in 1994
- The ***GDOT FY2012 Strategic Plan Update (FY2012 SPU)*** will mark the 7th plan submitted adhering to OPB guidelines



FY 2012 Strategic Plan Update

- FY 2012 SPU is based on Transportation Asset Management (TAM) principles and ideas
- TAM business principles are characterized by:
 - A **clear link between defined goals/objectives and policy decisions**
 - An understanding of the connection between **proposed investments** and expected results
 - Resource allocation that considers tradeoffs and are **based on technical merit**

FY 2012 Strategic Plan Update

- VISION
 - *Keep Georgia Moving With Quality Transportation*
- MISSION
 - *The Georgia Department of Transportation provides a safe, seamless and sustainable transportation system that supports Georgia's economy and is sensitive to its citizens and environment.*
- CORE VALUES (CARE)
 - COMMITTED
 - ACCOUNTABLE
 - RESPONSIBLE
 - ETHICAL

GOALS and OBJECTIVES

- Agency **GOALS** were derived from the Mission and Vision and establish a direction for the Department
- **OBJECTIVES** and corresponding **Performance Measures** are used to track our progress at meeting our GOALS.
- Short term Strategies are also included in the 2012 SPU
 - Specific Activities that are implemented to meet each objective
 - Have specific milestones and can be completed within a specific time span (usually a year)

GOALS

- Making GDOT *a better place to work* will make GDOT a place that works better
- Making *safety* investments and improvements where the traveling public is most at risk
- *Taking care of what we have*, in the most efficient way possible
- *Planning and Constructing* the best set of mobility focused projects we can, on schedule

Strategic Objectives

- Making GDOT *a better place to work* will make GDOT a place that works better
 - Complete the nomination and selection process for the second cohort of the Succession Planning Program
 - Ensure that staff is allocated at a determined level to achieve maximum efficiency and effectiveness throughout the Agency
 - Improve employee recognition and engagement
 - Focus is on Employee Satisfaction and Leadership ratings

Strategic Objectives

- Making *safety* investments and improvements where the traveling public is most at risk
 - Reduce the number of fatalities by 40 per year
 - Stems from a National Goal of reducing fatalities across the country by 1000 per year
 - Georgia's goal of 40 is based on our ADT, roadway types, population and other factors
 - Reduce the time that the traveling public is impeded by incidents

Strategic Objectives

- *Taking care of what we have*, in the most efficient way possible
 - Maintain State-owned bridges such that they meet a determined Strength and Deck Condition standard
 - Maintain Interstates at a COPACES Rating of 75 or more
 - Maintain State owned non-interstate routes at a COPACES Rating of 70 or more

Strategic Objectives

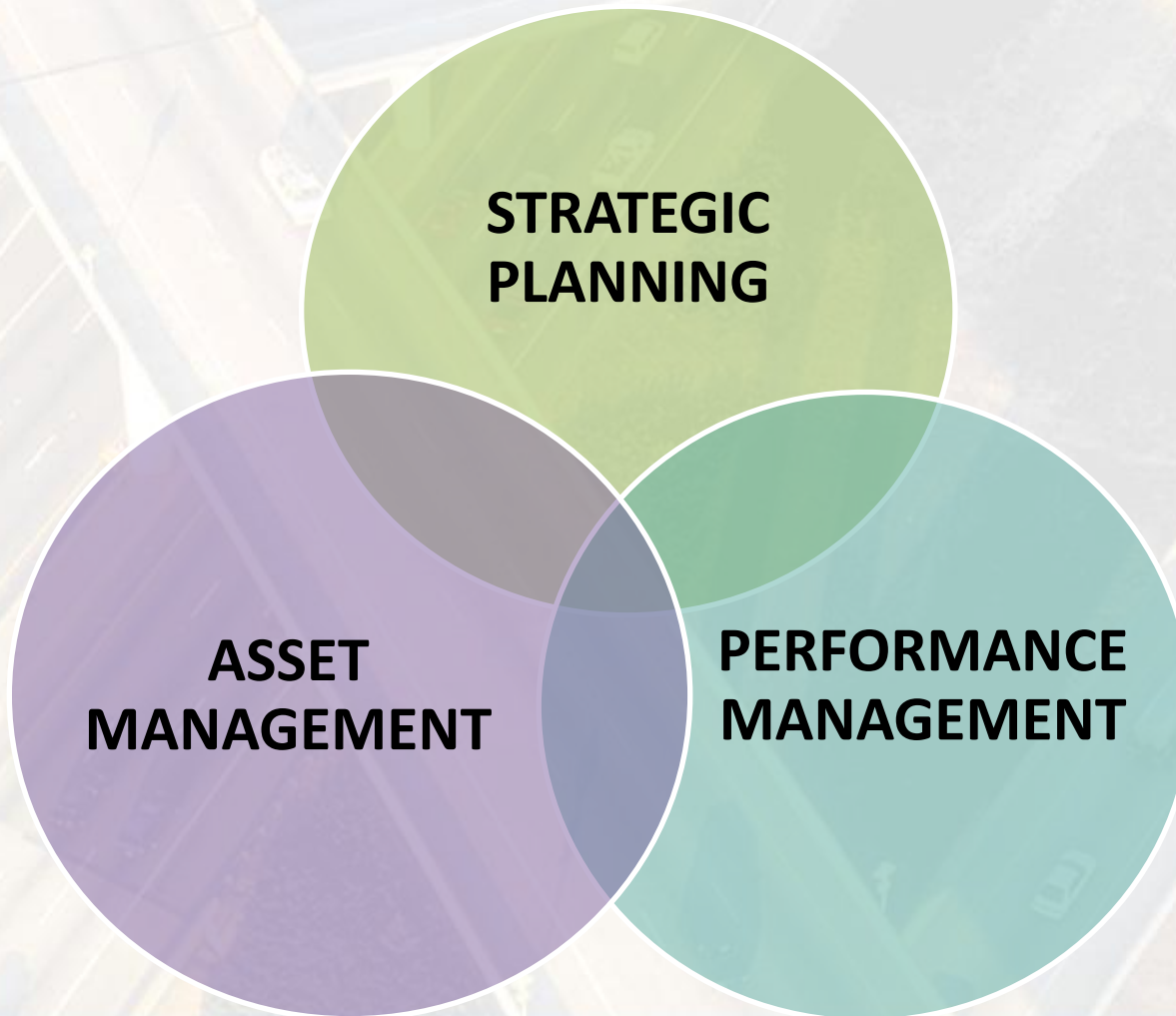
Planning and constructing the best set of mobility-focused projects we can, on schedule

- Reduce traffic congestion costs
- Optimize throughput of people and goods using our network assets
- Complete Plan Development and Construction of projects per the programmed year in the STIP
- Maintain or improve the percentage of survey respondents giving GDOT a grade of A or B for meeting transportation needs in Georgia

Strategy Map



Transportation Asset Management



Asset Management

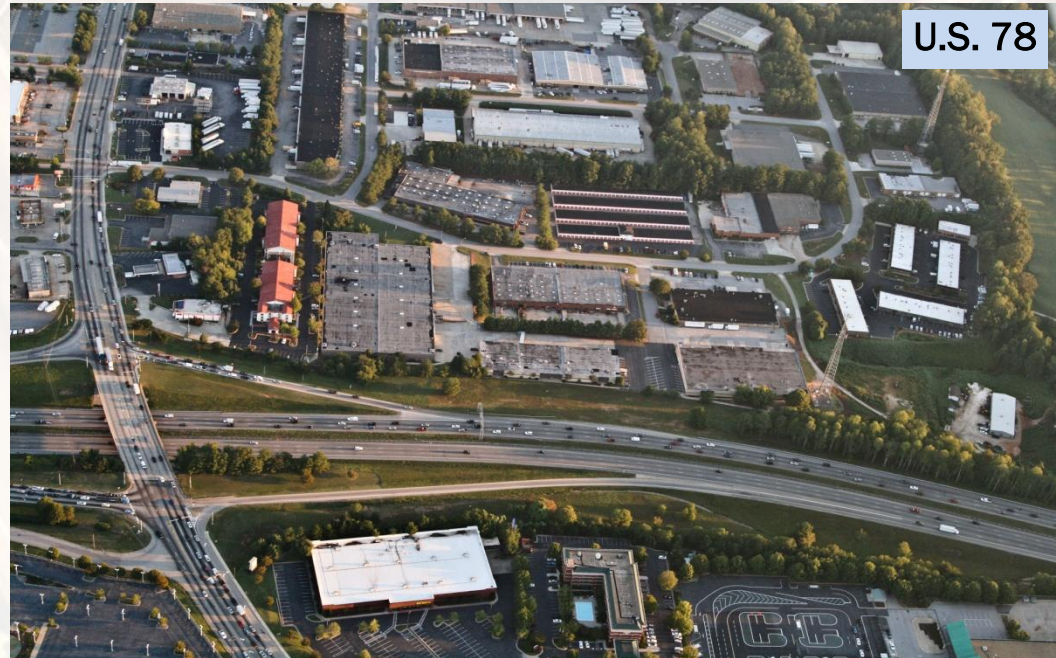
- Asset Management is a practice of making better decisions based on:
 - well-defined goals, objectives and targets
 - quality data and information
 - consideration of risk
- When used effectively it can prolong the life cycles of our most critical assets

Asset Management

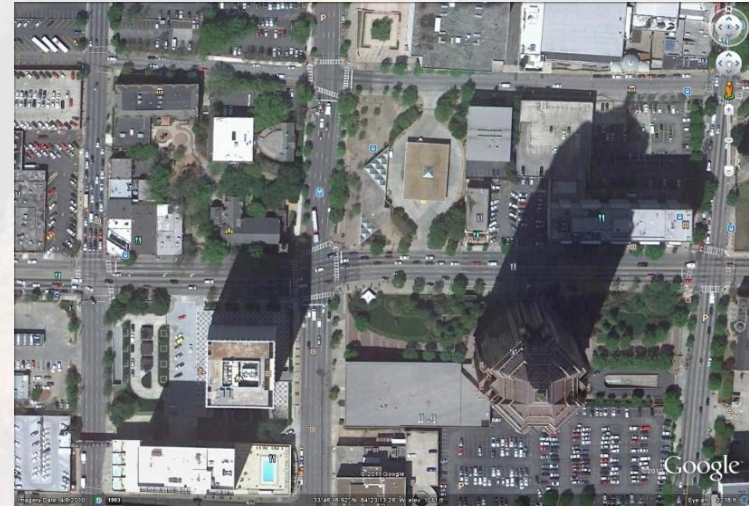
- Asset Management includes “risk based” decisions that consider such things as
 - high traffic volumes
 - greatest number of accidents
 - high truck or freight volumes
 - high public visibility
 - greatest overall risk to the public if the asset can not serve its purpose

Asset Management

- For Example....
 - Maintenance Improvement on I-285 vs. Stone Mountain Freeway



Asset Management



For Example....

- Intersection Improvement Windy Hill and US 41 vs. West Peachtree and North Ave.

Asset Management

- Asset Management is not new to GDOT, but the approach has changed
- “Worst-first” methodology replaced by “Most-at-Risk”
- “Worst-first” philosophy can result in the delay of maintenance activities on high mobility-risk facilities
- The result can be a larger investment in the future when financial constraints are at their highest

Peer State Best Practices

- AASHTO recognizes the following states as leaders in transportation asset management and innovation
 - Michigan DOT
 - Established performance targets linked to four goals
 - Developed scenarios for service delivery based on funding short-falls
 - Utah DOT
 - Uses performance measures and targets to set service-level expectations
 - Prioritizes work at the regional level and below based on performance

Peer State Best Practices

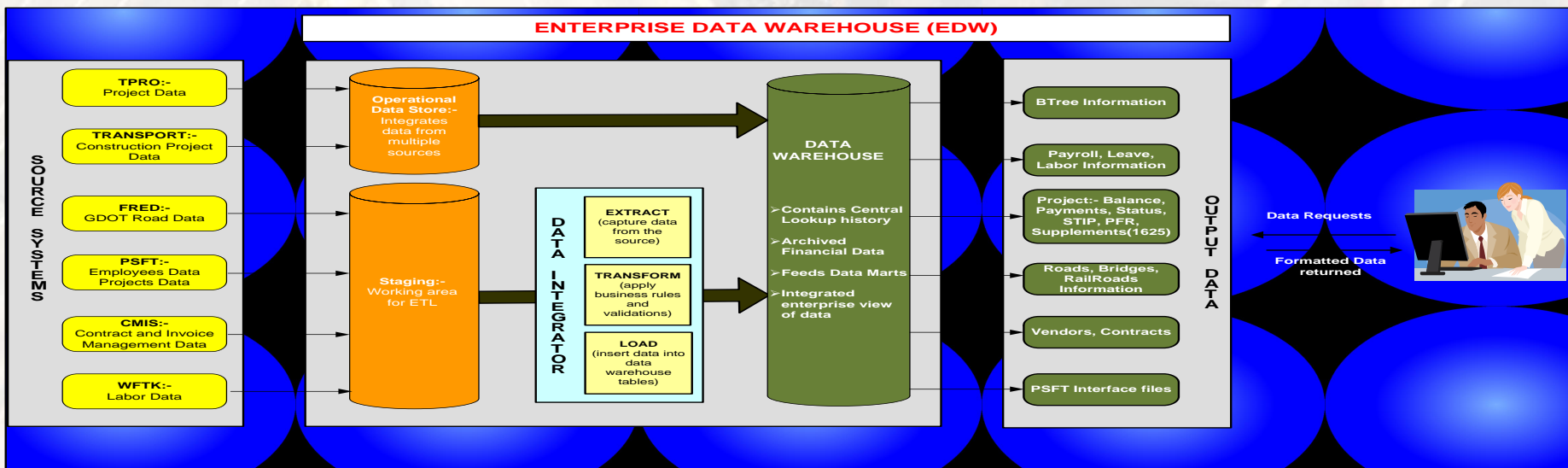
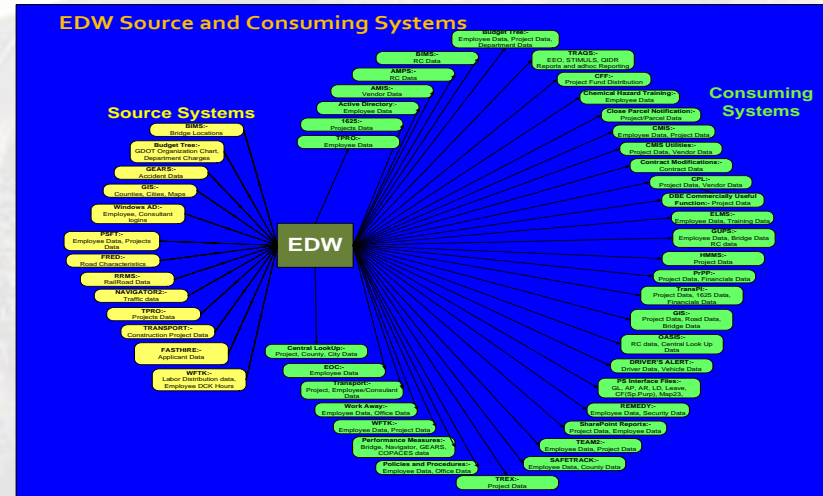
- AASHTO leaders in transportation asset management continued
 - Missouri DOT
 - Establishes acceptable levels of service by listening and engaging customers
 - Washington State DOT
 - Has an effective system which took years to develop, refine and grow
 - Prioritizes based on needs and data generated from the system

GDOT's Efforts to Date

- Establishment of the TAM Task Force in FY 2010
- Self-assessment was the first assignment of the Task Force
 - inconsistencies in data collection
 - inconsistencies in criteria used to modify IT applications
 - challenges in communication and data sharing among Divisions and Offices
- Provided an opportunity to address issues and improve

GDOT's Efforts to Date

- The Data Governance was conceived
 - monitor and manage changes to data collection and IT processes
 - process for requesting new applications
 - implementation of data warehousing



GDOT's Efforts to Date

- Strategic Plan reflects new goals and objectives and focuses on TAM principles
- Implementation of TAM principles have begun in Maintenance areas of Pavements and Bridges
- Working with Districts to establish goals and Performance Levels of Service for critical asset categories
- Developing a Communications Plan to disseminate TAM related information to staff, legislators and public

GDOT's Efforts to Date

- Participated in a Scanning Tour to learn how other states have implemented TAM principles
 - North Carolina DOT has successfully implemented a dashboard reporting system
 - Indiana DOT established good scenario analysis with pavements and bridges
 - Washington State DOT implemented reporting and transparency by providing web-access to all of its TAM related data
 - Washington and North Carolina DOTs also have well advanced data governance programs

Transportation Asset Management?



Why Performance Management?

- Encourages a culture change of making decisions differently
- Evaluates if you are moving towards meeting the goals and objectives
- Helps identify a need to change direction
- Allows comparison of various strategies
- Identifies where additional resources are needed
- Informs staff how their job helps achieve the goals of the Department

Performance Management isn't new to GDOT

- GDOT's first efforts at Performance Management resulted in over 400 Performance Measures
- Following adoption of revised Goals, an achievable number of agency Objectives and Performance Measures were defined
- Agency Level Measures are:
 - Tied to an Agency Goal and Objective
 - Clear, Distinct and Understandable by Staff and the Public
 - Gives an overall view of how well the Department is doing at meeting our Goals

Here's how it works

Goal Making Safety Investments and Improvements Where the Traveling Public is Most at Risk		
OBJECTIVE	MEASURE	TARGET
Reduce the number of Georgia's fatalities	Number of fatalities annually	a reduction of 40 per year
Reduce the time the traveling public is impeded by incidents	Average HERO Response Time tracked monthly	a target of < 10 minutes

Here's how it works

Goal Planning and Constructing the Best Set of Mobility Focused Projects We Can, On Schedule		
OBJECTIVE	MEASURE	TARGET
Optimized throughput of people and goods through network assets throughout the day	AM Peak-Hour Freeway Speeds on Key Performance Indicator (KPI) Corridors - General Purpose Lanes	an average speed of 40 mph
	PM Peak-Hour Freeway Speeds on Key Performance Indicator (KPI) Corridors -General Purpose Lanes	an average speed of 40 mph
Complete Plan Development and Construction of projects per the programmed year in the currently approved STIP	Percent of ROW Phases Authorized on Schedule per the approved STIP	80% of ROW Phases
	Percent of Construction Phases Authorized on Schedule per the approved STIP	80% the Construction Phases

Performance Management Dashboard

- The purpose of the Dashboard is to:
 - Inform's Public and Staff of Department Priorities
 - Set Public Expectations
 - Share the good, bad and ugly
 - Celebrate our successes and identify our challenges

Questions?

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